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CLAIMS

1. A process for producing a formic ester, comprising reacting carbon monoxide with an alcohol to produce a formic ester, wherein the reaction is performed 5 in the presence of an alkali metal-type catalyst and/or an alkaline earth metal-type catalyst.
2. A process for producing a methanol, comprising reacting carbon monoxide with an alcohol in the presence of an alkali metal-type catalyst and/or an alkaline earth 10 metal-type catalyst to produce a formic ester, wherein a hydrogenolysis catalyst for formic ester and hydrogen are allowed to be present together in the reaction system to hydrogenate the produced formic ester and thereby obtain a methanol.
- 15 3. A process for producing a methanol, comprising reacting carbon monoxide with an alcohol in the presence of an alkali metal-type catalyst and/or an alkaline earth metal-type catalyst to produce a formic ester, separating the produced formic ester and hydrogenating the separated 20 formic ester by allowing a hydrogenolysis catalyst and hydrogen to be present together, thereby obtaining a methanol.
- 25 4. A process for producing a methanol, comprising reacting an alcohol in the presence of an alkali metal-type catalyst and/or an alkaline earth metal-type catalyst, and a catalyst containing Cu simultaneously with Mn and/or Re to obtain a methanol from carbon monoxide and hydrogen.
- 30 5. A process for producing a formic ester, comprising reacting carbon monoxide with an alcohol, wherein the reaction is performed in the presence of a catalyst containing Cu simultaneously with Mn and/or Re.
- 35 6. The production process as claimed in any one of claims 1 through 4, wherein the alkali metal-type catalyst and the alkaline earth metal-type catalyst are a catalyst containing an alkali metal salt and a catalyst containing an alkaline earth metal salt, respectively.

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7. The process for producing a methanol as claimed in claim 2 or 3, wherein the hydrogenolysis catalyst is a solid catalyst and the alkali metal-type catalyst and/or the alkaline earth metal-type catalyst is supported on said solid catalyst and used for the reaction.

8. The production process as claimed in any one of claims 1 through 5, wherein the alcohol is a primary alcohol.

9. A catalyst for producing a methanol, which is obtained by loading an alkali metal-type catalyst and/or an alkaline earth metal-type catalyst on a solid hydrogenolysis catalyst for formic ester.

10. A catalyst for producing a methanol, which is composed of an alkali metal-type catalyst and/or an alkaline earth metal-type catalyst, and a catalyst containing Cu simultaneously with Mn and/or Re.

11. A catalyst for producing a formic ester, comprising Cu simultaneously with Mn and/or Re.